



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,646	06/08/2001	Lee-Shan Chang	A34344	9336

21003 7590 03/22/2005

BAKER & BOTTS
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

LEE, MICHAEL

ART UNIT	PAPER NUMBER
----------	--------------

2614

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/877,646

Applicant(s)

CHANG ET AL.

Examiner

M. Lee

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Asaida et al. (4,761,685).

Regarding claim 1, Asaida discloses an image sensor registration system showing a step of setting of a first reference point (col. 7, lines 22-28), a step of providing a specific diagram (test chart 10), a step of setting a second reference point (as shown in Figure 8, the center points of the two cross-shaped reference images are offset from each other), a step of setting the second reference point as the optical center (col. 7, lines 29-34). It should be noted that the two cross-shaped reference images, including the center points, are composed of many smaller image points or image pixel blocks. Therefore, when aligning the two reference images, not only the respective center points have to be considered, but the extension points from the center points must have to be considered also. Therefore, the images points in the reference images clearly meet the reference points as claimed.

Regarding claim 2, as understood from above, any extension point of the cross-shaped reference image from the center point is considered a reference point. For instance, as illustrated in Figure 8, the solid cross-shaped reference image, which

resides at the image sensor, is composed of many reference points, including the center point. Therefore, the composition of the image clearly meets the claimed setting steps.

Regarding claim 3, many conventional mathematical coordinates, such as polar coordinates, can define the reference point in the cross-shaped reference image in Figure 8. Therefore, using different mathematical coordinates to define a location of a same object do not carry patentable weight.

Regarding claim 4, similar to the rejection to claim 3, Cartesian coordinate does not carry patentable weight.

Regarding claim 5, the dotted reference points in cross-shaped reference image of chart 10 illustrated in Figure 8 are defined by the same mathematical coordinate as the solid cross-shaped reference image.

Regarding claim 6, see chart 10 or Figure 8.

Regarding claim 7, the center point of the solid cross-shaped reference image meets the first reference point as claimed (see Figure 8).

Regarding claim 8, the center point of the dotted cross-shaped reference image meets the second reference point as claimed (see Figure 8).

Regarding claim 9, see CCD sensor 31.

Regarding claims 10-16, in addition of above, Asaida further shows a step of providing an image sensor (image sensor 31), a step of transforming the image into electronic signals (col. 3, lines 51-54), a step of recording (the digitizer 47, oscilloscope 44, microcomputer 48, and printer 49 all have recording means), and a step of picking up (see dotted cross-shaped reference image 10 in Figure 8).

Art Unit: 2614

Regarding claims 17 and 18, similar to rejections above, the conventional mathematical coordinates do not carry patentable weight because all conventional mathematical coordinates can define the offset of the dotted and solid cross-shaped reference images.

Regarding claim 19, the digitizer 47, the oscilloscope 44, the microcomputer 48, and the printer all have recording means.

Regarding claim 20, see CCD sensor 31.

Regarding claim 21, in addition of rejections above, the solid cross-shaped reference image in Figure 8 is considered an absolute coordinate.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Asaida et al. (4,761,685).

Regarding claim 22, Asaida does not specify the step of setting one of four corners of the image display unit as the origin of the absolute coordinate as claimed. In any event, as illustrated in Figure 8, Asaida shows that the origin of the coordinate is intended to be at the center of the image. In any event, it is well known that the origin of a coordinate can be translated to different locations by well-known translation rules. Such translation does not have any effect in a system other than the coordinate values.

Art Unit: 2614

For instance, the origin in Asaida can be arbitrarily shifted to any location from the center, such as the four corners, while nothing is changed in the image other than the coordinate values. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Asaida so that the origin of the reference image could have different origins. Such modification would have been an obvious design choice and carry no patentable weight.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bedford (2,594,382) shows a registration system.

Yamazaki et al. (4,682,221) shows an image adjusting means (see Figure 3a-3d).

Oshima et al. (5,444,481) shows a CCD calibration means.

Tamura (4,712,187) shows a camera centering means.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Lee whose telephone number 571-272-7349. The examiner can normally be reached on Monday through Thursday from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 2614

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'M. Lee', written in a cursive style.

M. Lee
Primary Examiner
Art Unit 2614